REMARKS

This responds to the Office Action mailed on March 20, 2007.

Claim 1 is amended; as a result, claims 1 – 5, 11 – 14 and 19 - 23 remain pending in this application. Claims 6 – 10, 15 – 18, and 24 - 27 were previously canceled.

§103 Rejection of the Claims

Claims 1-4, 11-14 and 19-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Silcott (U.S. 20030098422) in view of Spremo (U.S. 6,930,775), and optionally further in view of Cramp (U.S. 4,490,043).

Applicants' invention, as recited in claim 1, is directed to the detection of bioagents using two closely spaced ultraviolet (UV) wavelengths by fluorescing an aromatic protein. Because the two UV wavelengths are closely spaced, their atmospheric absorption levels are about the same allowing the detection of the protein's different fluorescence levels. This allows the accurate detection of bioagents in a stand-off mode (i.e., allows the user to stand away from a suspect cloud). This may also reduce the number of false alarms cause by naturally occurring aerosols.

Applicants find no teaching, suggestion, or motivation in any of the cited references, either separately or in combination, to detect bioagents using two closely spaced ultraviolet (UV) wavelengths by fluorescing an aromatic protein. Silcott's bioagent detection system emphasizes the use of a ***single wavelength*** (see Silcott paragraph [0048] lines 7 – 8 and paragraph [0050]). According to the Examiner, Silcott *fails to teach the use of a pair of closely-spaced wavelengths* (page 4 of a previous office action dated February 16, 2006) to fluoresce. Since Silcott fails to teach the use of pairs of wavelengths as recited in Applicants' claims, the combination of Silcott with any of the other references cannot result in Applicants' claimed invention.

Silcott discloses that harmonics of the fundamental excitation wavelength may be used for increased flexibility in generating wavelengths, however by definition, harmonics cannot be closely spaced (see Silcott paragraph [0051]). For example, the second and third harmonics of an 808 nm laser diode are 404 and 269 nm respectively, which Silcott uses to extend the range of the fluorescence emission bands (see Silcott paragraph 0051]). These harmonics have very different atmospheric absorption levels.

Applicants find no teaching, suggestion or motivation in Silcott to use two-closely spaced UV wavelengths to fluoresce and detect the elevate presence of an aromatic protein.

Spremo has been cited by the Examiner for disclosing that a closely spaced wavelengths may be separated by a Blaze grating. However, **the combination of Silcott and Spremo fails to disclose the use of two closely spaced UV wavelengths to fluoresce an aromatic protein.**

Cramp has been cited by the Examiner to show that "it would be obvious to ensure that the plurality of laser diodes disclosed by Silcott and Spremo are used to produce a pair of wavelengths that interact with the analyte in question differently, but exhibit similar atmospheric absorption levels" (see page 5 of the office action mailed 3/20/07). Applicants respectfully disagree with this statement by the Examiner and submit that neither Silcott nor Spremo disclose using a pair of wavelengths to interact with an analyte differently but exhibit similar atmospheric absorption levels. Note that in a prior office action, the Examiner stated that Silcott fails to teach the use of a pair of closely-spaced wavelengths.

Furthermore, Cramp does not disclose the use of two wavelengths that have similar atmospheric absorption levels. In Cramp, two laser beams have different wavelengths and different absorption levels. According to Cramp, the different atmospheric absorption levels are known and their ratio can be used to determine how much of one wavelength is being absorbed by a gas being monitored (see Cramp, column 1, lines 14 – 41). In Cramp, the problem associated with the different absorption levels of different wavelengths is *required* so that the absorption of the wavelength by the gas being monitored can be determined. *Accordingly, Cramp **teaches away** from the use of two wavelengths that have about the same atmospheric absorption because it would make Cramp **inoperable**.*

In view of the above, Applicants submit that the rejection of claims 1-4, 11-14 and 19-20 under 35 U.S.C. § 103(a) has been overcome and that claims 1-4, 11-14 and 19-20 aware in condition for allowance.

Claim 5 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Silcott in view of Spremo and Cramp as applied to claim 1, and further in view of Dai (US 20030230728). Dai has been cited by the Examiner for disclosing the use of laser diodes for generating UV wavelengths. Applicants submit that Dai does not teach or suggest separately generating a pair of wavelengths. Dai simply uses wavelengths within a particular range for a particular dye (see table 1 and table 2). There is no motivation in Dai to use a ***pair*** of wavelengths for a ***single*** biological particle and therefore it cannot be implied that Dai inherently discloses this. Accordingly, the combination of Silcott in view of Spremo and Cramp as applied to claim 1, and further in view of Dai, does not result in Applicants' claimed invention.

Claims 21 and 23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Silcott in view of Spremo and optionally in view of Cramp as applied to claims 15 and 20, and further in view of Petrich (U.S. 20030160182). Petrich has been cited for disclosing a range finder, however in view of the above, Applicants submit that the combination of Silcott in view of Spremo and optionally in view of Cramp as applied to claims 15 and 20, and further in view of Petrich, does not result in Applicants' claimed invention.

Claim 22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Silcott in view of Spremo and optionally in view of Cramp as applied to claim 5, and further in view of Reichert (U.S. 6,911,344) or Giebeler (6,313,471). Reichert and Giebeler have been cited for disclosing a blaze grating. However, as discussed above, the combination fails to disclose the use of two closely spaced UV wavelengths to fluoresce an aromatic protein.

RESERVATION OF RIGHTS

In the interest of clarity and brevity, Applicant may not have addressed every assertion made in the Office Action. Applicant's silence regarding any such assertion does not constitute any admission or acquiescence. Applicant reserves all rights not exercised in connection with this response, such as the right to challenge or rebut any tacit or explicit characterization of any reference or of any of the present claims, the right to challenge or rebut any asserted factual or legal basis of any of the rejections, the right to swear behind any cited reference such as provided under 37 C.F.R. § 1.131 or otherwise, or the right to assert co-ownership of any cited reference. Applicant does not admit that any of the cited references or any other references of record are relevant to the present claims, or that they constitute prior art. To the extent that any rejection or assertion is based upon the Examiner's personal knowledge, rather than any objective evidence of record as manifested by a cited prior art reference, Applicant timely objects to such reliance on Official Notice, and reserves all rights to request that the Examiner provide a reference or affidavit in support of such assertion, as required by MPEP § 2144.03. Applicant reserves all rights to pursue any cancelled claims in a subsequent patent application claiming the benefit of priority of the present patent application, and to request rejoinder of any withdrawn claim, as required by MPEP § 821.04.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (480) 659-3314 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

JAMES G. SHEPARD ET AL.

By their Representatives,

SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
P.O. Box 2938
Minneapolis, MN 55402
(480) 659-3314

Date May 7, 2007

By 
Gregory J. Gonsalves
Reg. No. 36,530

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being filed using the USPTO's electronic filing system EFS-Web, and is addressed to: Mail Stop Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 7 day of May 2007.

KIMBERLY BROWN

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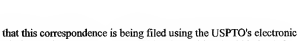

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